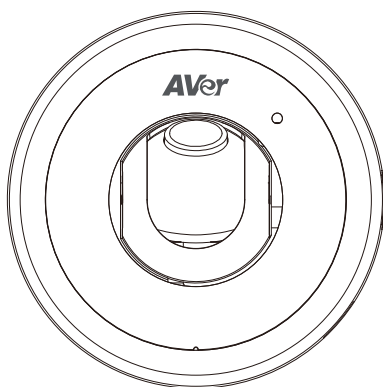




FD2000

Mini Dome Camera

Installation Guide



FCC NOTICE (Class A)



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

Warning -This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Community Compliance Statement (Class A)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

Warning - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

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Trademark

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NOTICE

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.



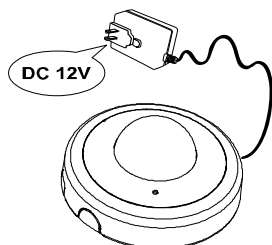
THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

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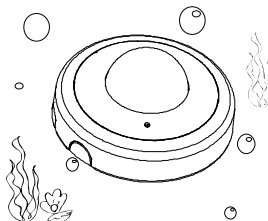
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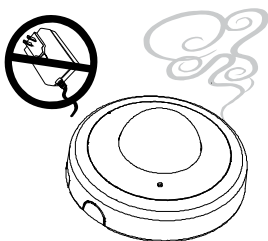
Important Safeguard



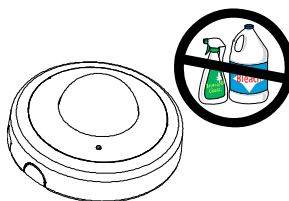
Do not use power supply with different voltage other than DC 12V.



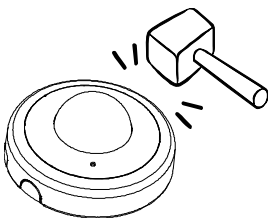
Do not submerge the unit in the water.



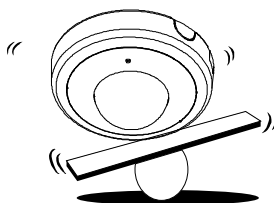
Unplug the power of this unit as soon as smoke or unusual odor is detected.



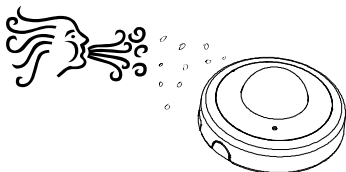
Unplug the power supply before cleaning. Use only a lens cleaning cloth and never use benzene, thinner, or other solvent for cleaning.



Do not attempt to service this unit by yourself. Always refer all servicing to qualified service personnel.



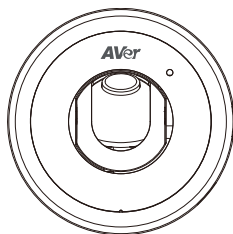
Do not place the unit in unsteady surface and also do not drop the unit.



Keep the IP camera housing close and prevent the dust from getting in the housing.

Package Contents

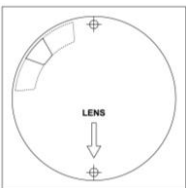
The following items are included in the package.



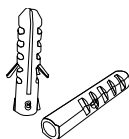
AVer Dome type Camera



Software & Manual CD



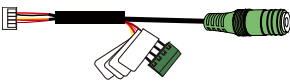
Alignment Sticker



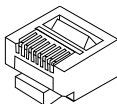
2 Plastic Anchors



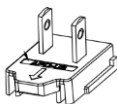
Screw



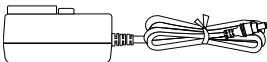
DIDO & Audio cable



RJ45 header



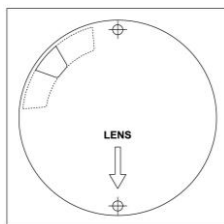
Power plug**



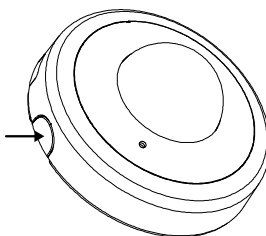
Power Adapter (12V, 2A)

IP Camera Installation

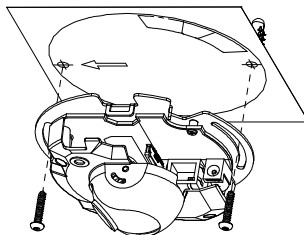
1. Place the sticker on the wall surface. Then spot the mark and drill the holes indicated on the sticker.



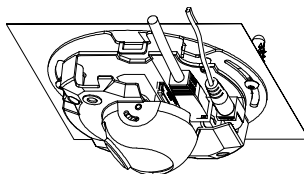
2. Press both side of tenon to open the cover case of the camera.



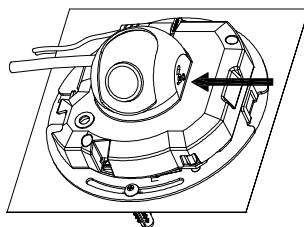
3. Use the plastic anchors to secure the camera on the wall.



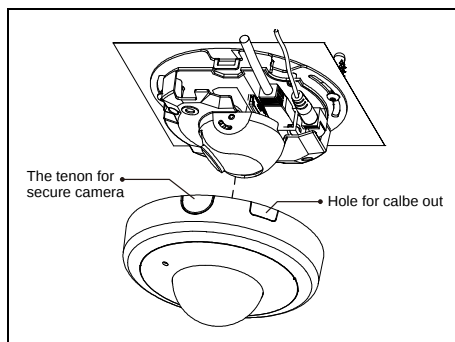
4. Connect the power cable and Ethernet cable to the camera.



5. Loosen the screw of the lens to adjust the focus. After adjusting, screw the lens tight.

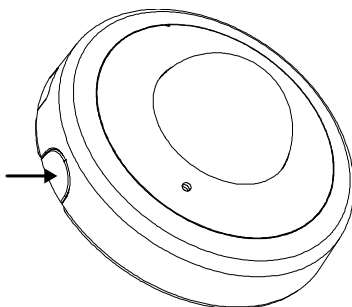


6. Close the cover case of the camera as figure shown.

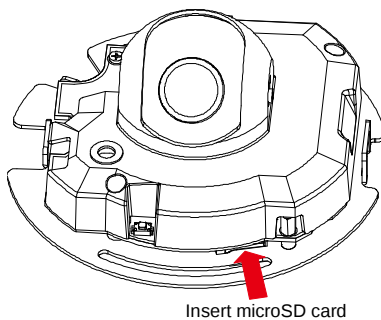


Insert microSD Card

1. Press both side of tenon to open the cover case of the camera.

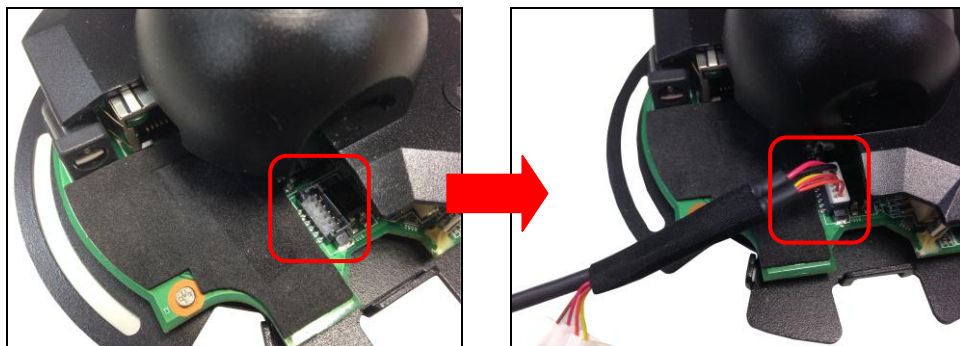


2. Insert microSD card



External Audio Cable Installation

1. Press both side of tenon to open the cover case of the camera.
2. Connect the external audio cable to the camera.



3. Finally, close camera case cover and secure it.

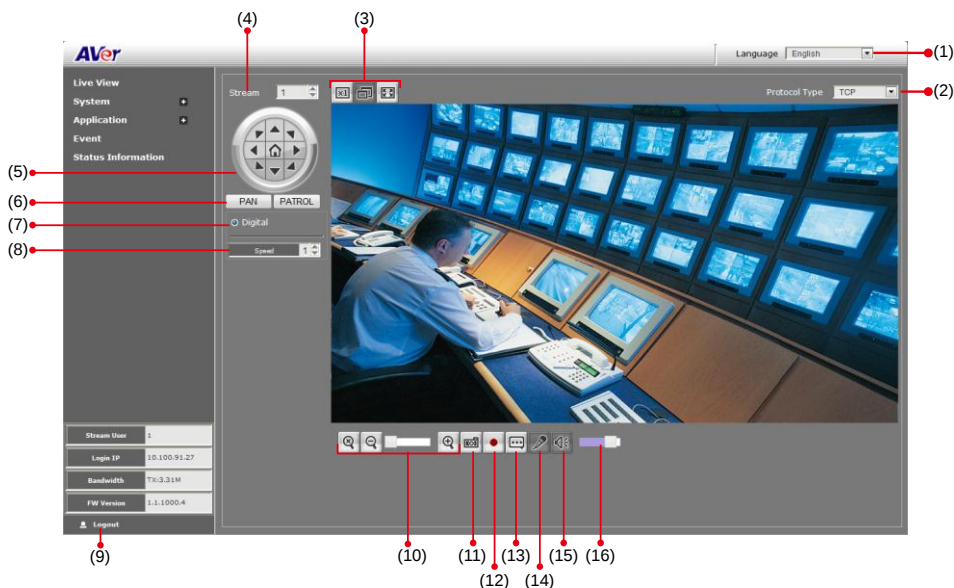
Using the IP Camera Browser Interface

The admin have the full access to the IP camera browser interface. The menu on the left, you can expand and navigate to access all the features.

Open the IE browser and enter the IP address of IP camera to access the IP camera Web configuration interface. In login dialog, enter the ID and Password (default is **admin/admin**).

Live View

In the Live View page, all three user levels can view and change the language setting, the IP camera video stream setting, use the digital Pan and Patrol control, capture screen shot, record video, turn on/off 2-way talk, mic and volume, and adjust the zoom and volume level.



Name	Function
(1) Language	Select the browser interface language.
(2) Protocol Type	Select the protocol for the live view video stream.

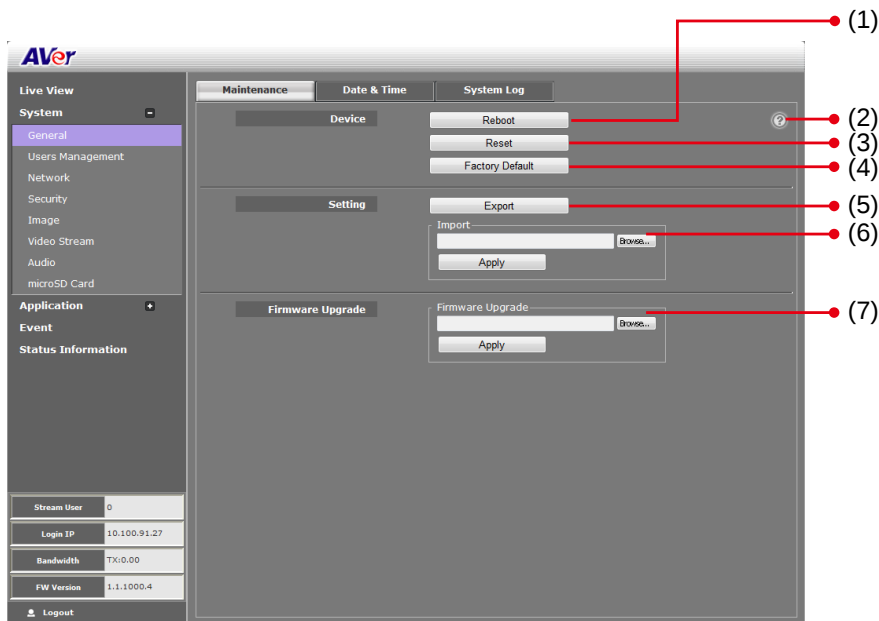
Name	Function
(3) Video screen	Change the video screen display.  Display the actual video pixel size.  Display the video screen in compact size.  Display the video on the entire screen. Press ESC to exit full screen mode.
(4) Stream	Switch to view the video stream type. The IP camera can send multiple video streams of up to 3 types. To change the video stream setting, go to System > Video Stream.
(5) Direction buttons	- Use to move the position of the view point while in zoom mode. - Use to control the position of the RS-485 pan tilt device
(6) Pan & Patrol button	Pan: automatically move the view point from left to right when in zoom in mode. Patrol: automatically move the view point around the preset locations in Application > Patrol.
(7) Digital	To control the IP camera ePTZ operation. This allows you to closely view the target area without having to physically move the IP camera. The image will be zoomed in and you can use the direction control to pan the zoomed image.
(8) Speed control	Set the speed when panning, tilting, or zooming.
(9) Logout	Click it to exit the camera connection.
(10) Zoom control	 Reset zoom level.  Increase zoom level.  Decrease zoom level.
(11) Capture	 Capture and save the image on the screen in *.bmp format.
(12) Record	 Start/stop audio and video recording. The recorded video will be saved in *.mp4 format.
(13) 2-way talk	 Enable/disable mic from IP camera browser side.
(14) Mic	 Enable/disable mic from the IP camera side.
(15) Sound	 Enable/disable audio from the IP camera side.
(16) Volume bar	Adjust the volume.

System > General

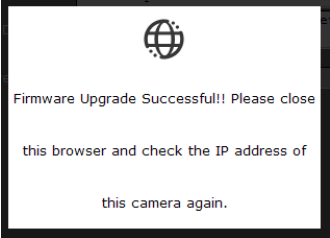
In this section, only admin level is authorized to configure the IP camera general settings. There are 3 tabs in General settings: Maintenance, Date & Time, and System Log.

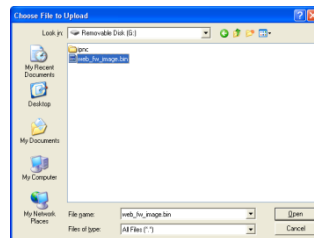
System > General > Maintenance

In the Maintenance tab, the admin can easily backup and restore the IP camera setting, reboot the IP camera, reset all the settings to factory default, and upgrade the IP camera firmware.



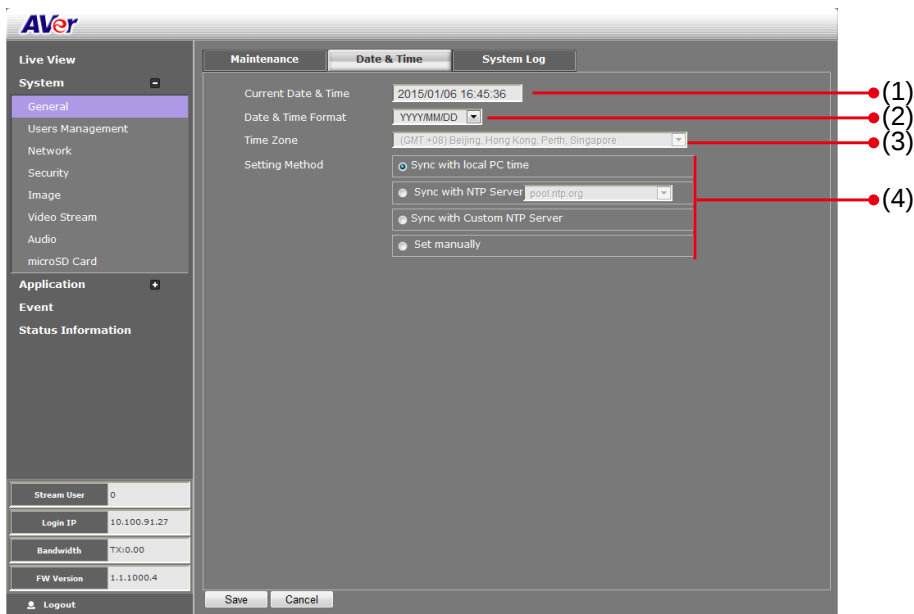
Name	Function
(1) Reboot	Restart the IP camera.
(2) Information	Displays the explanation of Reboot, Reset, and Factory default.
(3) Reset	Set all the configuration settings back to default except the user management and network settings.
(4) Factory Default	Set all the configuration settings back to factory default.
(5) Export Settings	Backup all the configuration settings.
(6) Import Settings	Restore or replace the current settings with the backup file.

Name	Function
(7) Firmware Upgrade	Upgrade the firmware to the latest version.
<u>To Upgrade the IP Camera Firmware</u> 1. Download the file from our website and save it in your computer hard disk. 2. Click Browse. Locate and select the file and click Open. 3. Click Apply. Wait till you see the message "Firmware Upgrade OK!!". You may now click the IE browser refresh button or press F5. The login page will appear.	
	



System > General > Date & Time

In the Date & Time tab, admin can manually set the date and time setting or synchronize it with the Internet time server or the computer date and time setting. This is used to record the time whenever there is a significant occurrence listed in system log and is also used in event scheduling. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Current Date & Time	Display the current date and time setting.
(2) Date Format	Select the date display format.
(3) Time Zone	Set the local time zone.

Name	Function
------	----------

(4) Setting Method

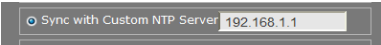
Select the date & time setting method.

Sync with local PC time: obtain the date and time setting on the current login computer.

Sync with NTP Server: obtain the date and time setting from NTP server. In the drop-down list, select the NTP host name.



Sync with Custom NTP Server: Enter the IP address of NTP server manually.



Set Manual: manually set the date and time. Click Now to set the date base on the computer time setting and Done to close the date and time interface.

System > General > System Log

In the System Log, admin can view and search the significant event occurred in the IP camera.

Live View

System

General

Users Management

Network

Security

Image

Video Stream

Audio

microSD Card

Application

Event

Status Information

Stream User 0

Login IP 10.100.91.27

Bandwidth TX:704.00

FW Version 1.1.1000.4

Logout

Maintenance

Date & Time

System Log

Search

Index	Time	LogString	Type
7	2014-12-22 09:47:08	One session disconnected. IP :10.100.91.27	SYSTEM
6	2014-12-22 09:10:47	One session connected. IP :10.100.91.27	SYSTEM
5	2014-12-22 08:49:32	DO Activate	SYSTEM
4	2014-12-22 08:49:29	DHCP client IP obtained. IP :10.100.91.51	SYSTEM
3	2014-12-22 08:49:28	microSD Card removed	SYSTEM
2	2014-12-22 08:49:27	System boot up	SYSTEM
1	2014-12-22 00:49:25	Abnormal reboot	SYSTEM

Showing 1 to 7 of 7 entries

System > User Management

In User Management, only admin level is authorized to create, delete, and edit account to connect to the IP camera and configure the client connection setting. There are 2 tabs in User Management setting: Account and Connection.

System > User Management > Account

In Account page, admin can create, delete and set the access level of the user account.

To Create a User Account

1. Click **System > User Management > Account** tab.
2. Enter the **User Name**, **User Info**, and select the **User Type**. Then, click **Create**.

User Name	User Type	PTZ Enable	User Info
Guest	viewer	No	guest
admin	admin	Yes	System Default User

User Type	Access rights
Admin	Allow to access all the configuration pages.
Operator	Allow to preview live image, modify and adjust certain settings; except in System > General, User Management, Network, and SD/microSD Card > Management. As for the I/O Control, admin could enable/disable to allow operator to access it.
Viewer	Only allow to access the preview and status information pages.

3. Enter the same password in **Password** and **Confirm Password** column. Then click **Add**.

Account | **Connection**

User Name:

User Type:

User Info:

PTZ Enable: ☒ Enable

Password:

Confirm Password:

Search:

User Name	User Type	PTZ Enable	User Info
admin	admin	Yes	System Default User

To Delete or Edit a User Account

Select the user account that you want to delete or edit.

- Click **Cancel** to cancel the operation.
- Click **Modify** to apply the new changes. Make sure to edit the account before clicking the Modify button.
- Click **Remove** to delete the account.

Account | **Connection**

User Name:

User Type:

User Info:

PTZ Enable: ☒ Enable

Password:

Confirm Password:

Search:

User Name	User Type	PTZ Enable	User Info
Guest	operator	Yes	operator
admin	admin	Yes	System Default User

System > User Management > Connection

In Connection page, admin can set the total number of user for accessing the IP camera, and filtering the IP address to allow or deny accessing the IP camera.

System	
General	
Users Management	
Network	
Security	
Image	
Video Stream	
Audio	
microSD Card	

Application	
Event	
Status Information	

Stream User	0
Login IP	10.100.91.27
Bandwidth	TX:0.00
FW Version	1.1.1000.4

Logout

Save

- **Http Connection:** Select the connection type. For higher security data transmission level, select http & https or http only. The authenticated and encrypted the data is over the SSL (Secure Socket Layer).
- **Maximum Number of Clients:** Select the max number of users to simultaneously access the IP camera.

System > Network

In this section, only admin level is authorized to configure the Network settings.

System > Network > Setting

In Setting page, you can configure the type of network connection for IP camera and assign name for the IP camera. Depending on the network connection, IP camera can be accessed from the computer within the same local area network (LAN) or anywhere with Internet connection. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.

The screenshot displays the AverLive Web interface for network configuration. The sidebar on the left contains navigation links: System, General, Users Management, Network (selected), Security, Image, Video Stream, Audio, microSD Card, Application, Event, and Status Information. The main panel features tabs for Setting, Server, Streaming, QoS, and Others. The 'Setting' tab is active, showing the 'Device Name' field set to 'IP camera'. Below it, the 'Network Type' is set to 'DHCP'. The IP configuration details are as follows:

Field	Value
IP Address	10.100.91.51
Subnet Mask	255.255.255.0
Default Gateway	10.100.91.254
Preferred DNS	10.100.1.5

Below the IP configuration, there are radio buttons for 'Static IP' and 'PPPoE'. The 'IPv6 Settings' section at the bottom has an 'Enable IPv6' checkbox. At the very bottom of the interface, there are 'Save' and 'Cancel' buttons. Red annotations (1), (2), and (3) point to the 'Device Name', 'Network Type', and 'IPv6 Settings' sections respectively.

Name	Function
(1) Device Name	Assign name for the IP camera.
(2) Network Type	Select the type of IP camera network connection. <u>DHCP</u>: select this option to automatically obtain an IP address from the DHCP server, whenever the IP camera is connected to the network. You can use the IP camera UPnP Discovery software in the CD to easily setup the IP camera network.

 DHCP

IP Address	10.100.102.73
Subnet Mask	255.255.255.0
Default Gateway	10.100.102.254
Preferred DNS	10.100.1.5

Name	Function
------	----------

(2) Network Type

Static IP: select this option to manually assign a fix IP address to the IP camera.

Static IP

IP Address

192.168.1.168

Subnet Mask

255.255.255.0

Default Gateway

192.168.1.254

Preferred DNS

192.168.1.1

PPPoE: select this option to access the IP camera anywhere with Internet connection. To use this option, this requires an account provided by the ISP. Set this setting while connected to the LAN and click **Save**. Connect the IP camera directly to DSL or cable modem.

PPPoE

User ID

Password

(3) IPv6 Settings

Enable IPv6 support

IPv6 Settings

Enable IPv6

Manually set the IP address

IP Address

Prefix Length

0

Gateway

Primary DNS

Select "Manually set the IP address" to specify IP address manually.

System > Network > Server

In Server page, you can configure the Email, FTP, and NAS setting. It is necessary to configure the server settings so that IP camera can perform the task in the Event setting when a trigger is activated. You can configure either one or all of it. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.

Aver

Live View

System

General

Users Management

Network

Security

Image

Video Stream

Audio

microSD Card

Application

Event

Status Information

Stream User2

Login IP10.100.91.27

BandwidthTX:3.97M

FW Version1.1.1000.4

Logout

Setting

Server

Streaming

QoS

Others

SMTP Mail Settings

Account Name

Password

Sender Email Address

Recipient Email Address

Mail Server IP

Port25

TLS Connection

Test

FTP Settings

IP Address

Port21

Account Name

Password

Path

Passive Enable

Test

NAS Settings

Location

Workgroup

Account Name

Password

Test

Save

Cancel

17

System > Network > Streaming

In Streaming page, you can configure the HTTP, HTTPS, RSTP port, and multicast setting. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.

Live View

System

General

Users Management

Network

Security

Image

Video Stream

Audio

microSD Card

Application

Event

Status Information

Stream User

2

Login IP

10.100.91.40

Bandwidth

TX:4.26M

FW Version

1.1.1000.4

Logout

Setting

Server

Streaming

QoS

Others

HTTP Port

80

HTTPS Port

443

RTSP Port

554

Multicast group address 1

239.128.1.5

Multicast video port 1

5566

Multicast RTCP video port 1

5567

Multicast audio port 1

5568

Multicast RTCP audio port 1

5569

Multicast TTL 1

255

Multicast group address 2

239.128.1.6

Multicast video port 2

5570

Multicast RTCP video port 2

5571

Multicast audio port 2

5572

Multicast RTCP audio port 2

5573

Multicast TTL 2

255

Multicast group address 3

239.128.1.7

Multicast video port 3

5574

Multicast RTCP video port 3

5575

Multicast audio port 3

5576

Multicast RTCP audio port 3

5577

Multicast TTL 3

255

Save

Cancel

System > Network > QoS

In QoS page, you can configure the Quality of Service setting. Enabling the QoS allows you to set the parameter and prioritize the IP camera to provide stable streaming performance at a certain level in a traffic network.

Aver

Live View

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Event

Status Information

Stream User2

Login IP10.100.91.40

Bandwidth7X3.72M

FW Version1.1.1000.4

Logout

SettingServerStreamingQoSOthers

CoS Enable

No

Yes

VLAN ID

1

(0~4094)

CoS Priority

4

(0~7)

QoS/DSCP Enable

No

Yes

QoS Priority

4

(0~63)

Save

System > Network > Others

In Others page, you can enable/disable the UPnP setting, setup dynamic domain name service, and setup SNMP settings. DDNS is a service that provides fixed host and domain name for the IP camera with dynamic IP address. It automatically updates the new IP address to the dynamic server of the domain name.

[Note] Click “?” icon can view value validation of port.

The screenshot displays the AVer network configuration interface. The left sidebar shows the navigation menu with 'Network' selected. The main area is divided into tabs: Setting, Server, Streaming, QoS, and Others. The 'Others' tab is active, showing the following settings:

- UPnP Support: ☐ OFF ☒ ON
- UPnP Forwarding: ☒ OFF ☐ ON
- DDNS Provider:
- DDNS DomainName:
- DDNS User:
- DDNS Pwd:
- DDNS Status:
- DDNS Enable: ☐

The SNMP Configuration section is expanded, showing the following options:

- ☒ Enable SNMPv1, SNMPv2
 - Read/Write community:
 - Read only community:
- ☒ Enable SNMPv3
 - Read/Write security name:
 - Authentication type:
 - Authentication password:
 - Encryption password:
 - Read only security name:
 - Authentication type:
 - Authentication password:
 - Encryption password:

At the bottom, there are 'Save' and 'Cancel' buttons.

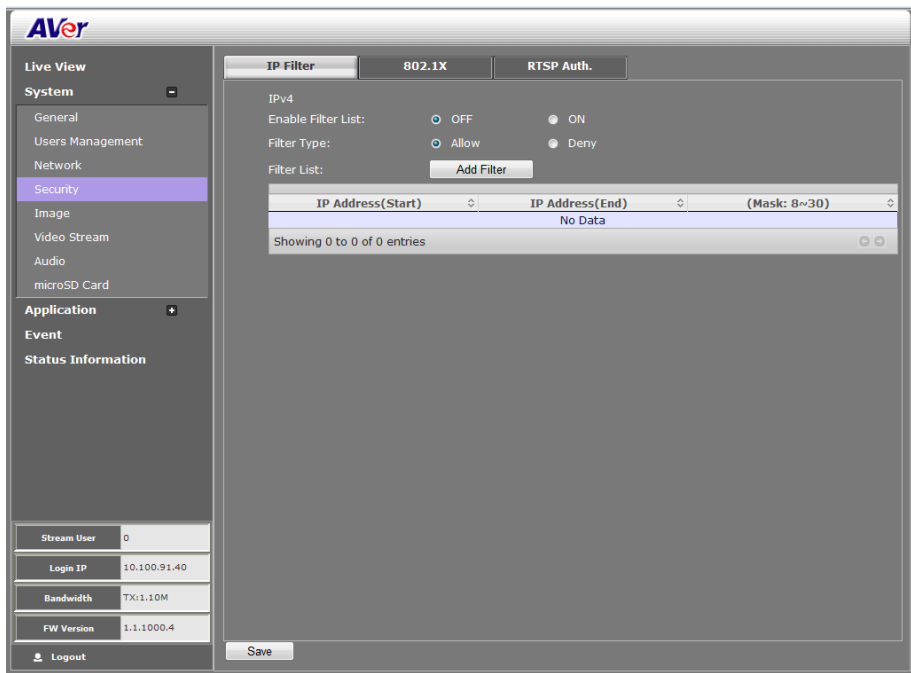
- **UPnP Support:** The IP camera supports UPnP, if this service is enabled on your computer.
[Note] 1. UPnP must be enabled on your PC.
2. If your router does not support UPnP function, you can enable the UPnP forwarding and set the port mapping.
- **UPnP Port Forwarding:** If the IP camera is installed behind the firewall, please select **ON** to enable it.
- **DDNS Provider:** The DDNS service provider's URL.
- **DDNS DomainName:** Enter the domain name that user has applied.
- **DDNS User:** Enter the user account that user has registered on DDNS service provider.
- **DDNS Pwd:** Enter the password that user has registered on DDNS service provider.
- **DDNS Status:** Display the current DDNS status.
- **DDNS enable:** Mark it to enable DDNS.

- **SNMP** (Simple Network Management Protocol) provides a simple framework for administering networked hardware. SNMPv1, SNMPv2c, and SNMPv3 can be enabled simultaneously.
- **SNMPv1 and SNMPv2:** The term "Community name" in SNMPv1 and SNMPv2 can be roughly regarded as key. The person who has the community name has the authority to read or edit the information of IP camera via SNMP. Check the box to enable SNMPv1 and SNMPv2 protocol, and specify the community name for **Read/Write** and **Read only community**. The user who uses read community name to access the IP camera cannot modify any data of this camera
- **SNMPv3:** For data security reason, the authentication and encryption assurances are added when developing SNMPv3. The user has to give not only the security name (the same as "community name" in v1&v2, or sometimes we call it "context name") but the password in order to access the IP camera. Please set **Read/Write Security name**, **Authentication type**, **Authentication password**, **Encryption type**, **Encryption password** of **Write/Read** and **Read Only security name** respectively. The password must be 8~64 bits in length.

System > Security

Only admin levels can adjust the Image setting. There are 3 function tabs: **IP Filter**, **802.1x**, **RSTP Auth...**

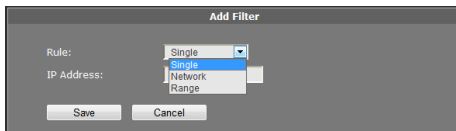
System > Security > IP Filter



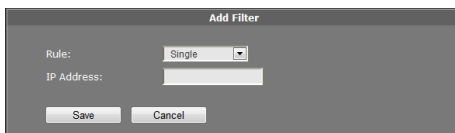
- **Enable Filter List:** Select to turn the IP address filtering on or off.
- **Filter Type:** Select to allow or deny the IP address in the filter list to access the IP camera.
- **Filter List:** Create and display the filtered IP address.

To Add Filter

1. Click **System > Security > IP Filter** tab, then, click **Add Filter**.
2. In Rule drop down list, select from the 3 types of rules: Single, Network and Range.

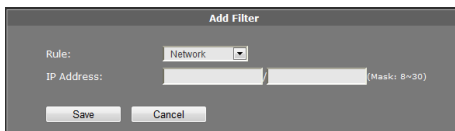


Single – add an IP address



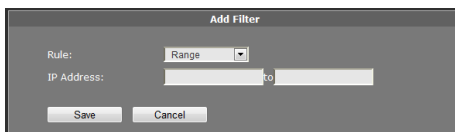
The 'Add Filter' dialog box shows the 'Rule' dropdown set to 'Single'. The 'IP Address' field is empty. At the bottom are 'Save' and 'Cancel' buttons.

Network – assign a network address and the corresponding subnet mask to be filtered.



The 'Add Filter' dialog box shows the 'Rule' dropdown set to 'Network'. The 'IP Address' field is split into two parts by a vertical line, with '(Mask: 8=30)' to the right. At the bottom are 'Save' and 'Cancel' buttons.

Range – assign a range of IP address to be filtered.



The 'Add Filter' dialog box shows the 'Rule' dropdown set to 'Range'. The 'IP Address' field is split into two parts by a vertical line with 'to' in between. At the bottom are 'Save' and 'Cancel' buttons.

3. Click **Save** to add the created data in the filter list or click **Cancel** to exit and without saving data.

System > Security > 802.1X

IEEE 802.1X is an IEEE Standard for port-based Network Access Control. It provides an authentication mechanism to devices wishing to attach to a LAN or WLAN.

Mark the check box to **Enable 802.1X** protocol. Select the **EAPOL** (EAP over LAN) **version**, **Authentication method** and enter the **ID** and **Password**.

[Note] Click “?” icon can view ID and password's value validation.

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Stream User2

Login IP10.100.91.40

BandwidthTX(4.00M)

FW Version1.1.1000.4

Logout

IP Filter

802.1X

RTSP Auth.

Enable 802.1X

Authorization

EAPOL version1

Authentication methodMD5

ID

Password

Authorization status : Unauthorized

Save

Cancel

System > Security > RTSP Auth.

Enable/disable RTST authentication.



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IP Filter

802.1X

RTSP Auth.

RTSP Auth.

☒ Enable

Stream User

2

Login IP

10.100.91.40

Bandwidth

TX:4.01M

FW Version

1.1.1000.4

Logout

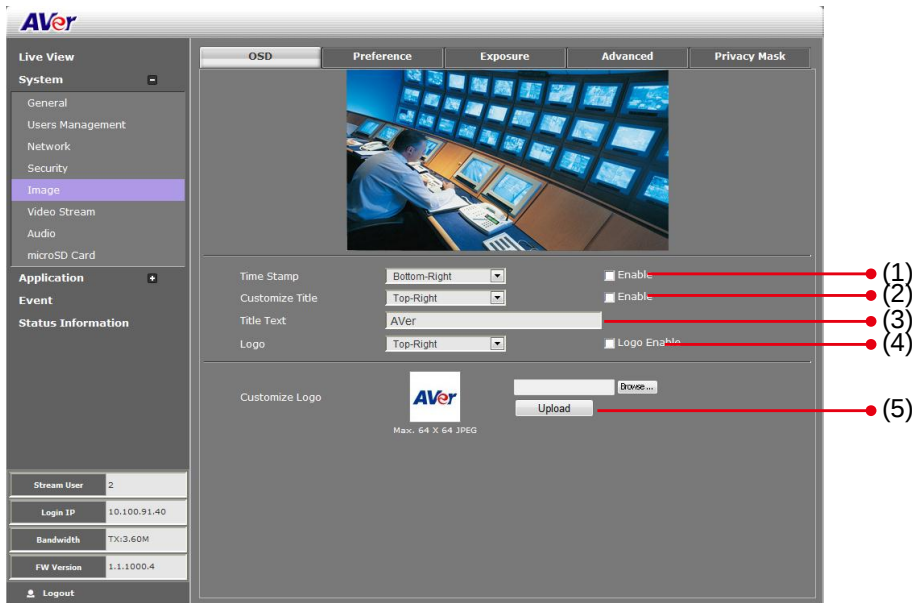
Save

System > Image

Both admin and operator levels can adjust the Image setting. There are 5 function tabs: **OSD**, **Preference**, **Exposure**, **Advanced**, and **Privacy Mask**.

System > Image > OSD

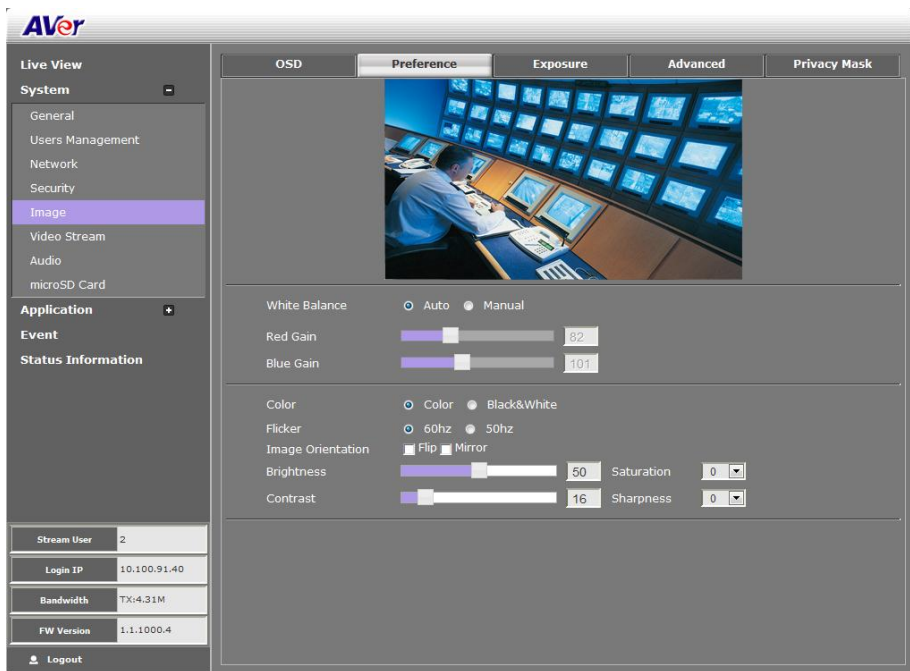
In OSD page, you can enable/disable overlaying time stamp, text title and add logo. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.



Name	Function
(1) Time Stamp	Select the location of the Time Stamp. Click the checkbox to enable/disable display the date and time stamp.
(2) Customize Title	Select the location of the Text Title. Click the checkbox to enable/disable display the text title.
(3) Title Text	Enter the title text, e.g. AVer.
(4) Logo	Select the location of the logo image file. Click the checkbox to enable/disable display the logo.
(5) Customize Logo	Upload your company logo. The maximum size is 64 x 64 pixels.

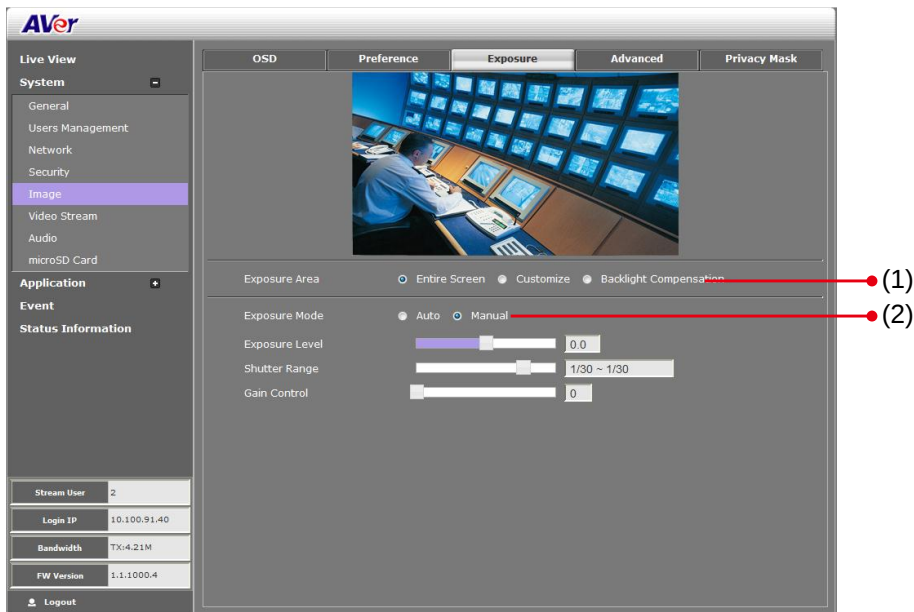
System > Image > Preference

In Preference page, you can tune the IP camera white balance, select display color or black & white, set the flicker frequency, change the video orientation, and adjust the brightness and contrast. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.



System > Image > Exposure

In Exposure page, you can set the exposure zone, exposure mode, and calibrate the DC Iris. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



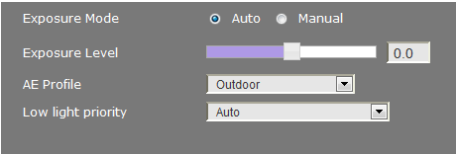
Name	Function
(1) Exposure Area	Select the exposure area to define the light distribution and bring out more details. Entire screen: measure the entire screen to adjust the exposure. Customize: measure the exposure to where the adjustable and movable frame on the screen is located. Move the spot to dark zone to adjust the light condition. Backlight compensation: measure the exposure at the center of the screen.

Name	Function
------	----------

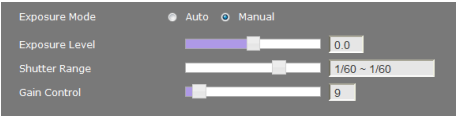
(2) Exposure Mode Select to automatically or manually adjust the exposure.

Auto:

- **Exposure level:** Adjust exposure level from -2.0 to +2.0
- **AE Profile:** Select the auto exposure scenes – Indoor, Outdoor, or ManualIRIS.
- **Low light priority:** Select the one you want to prioritize during low light mode image quality or frame rate.

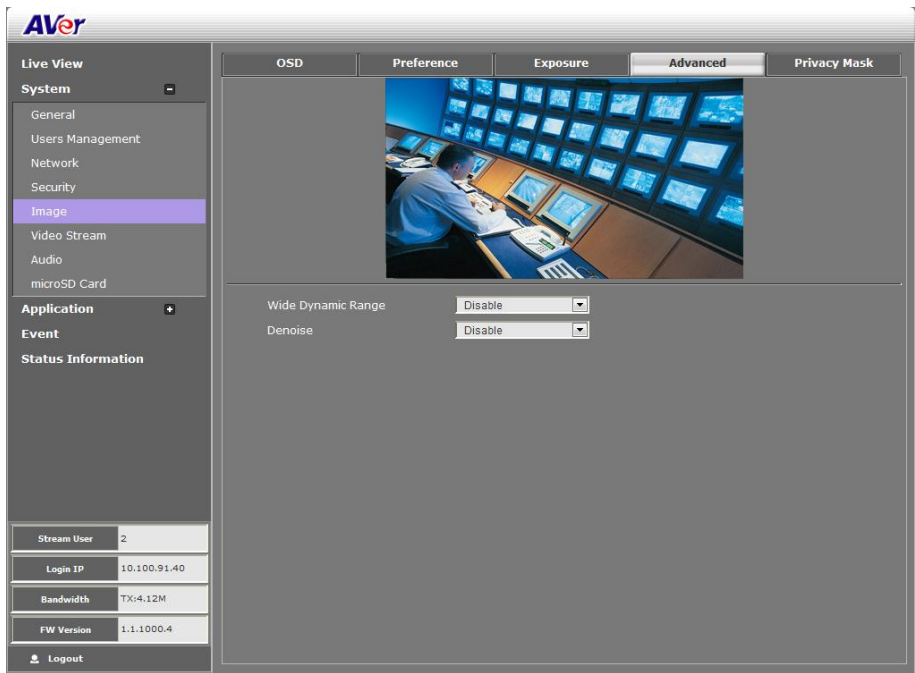


Manual: Adjust the Shutter and Gain Control settings.



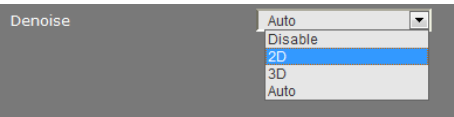
System > Image > Advanced

In Advanced page, you can configure the Wide Dynamic Range and Denoise. After completing the setting, click **Save** to apply the new setting and **Cancel** to keep the old setting.



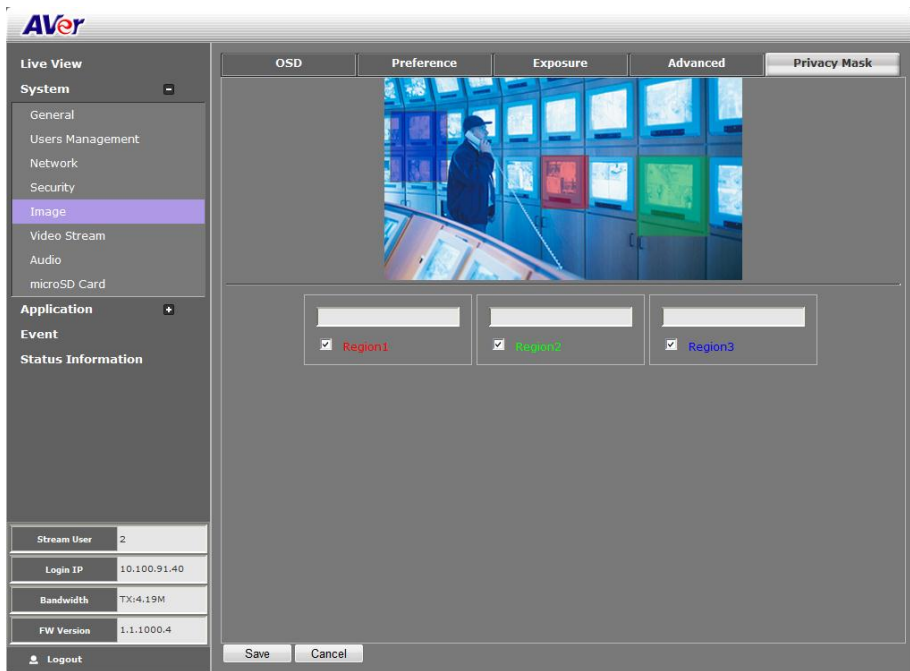
- **Wide Dynamic Range:** WDR effectively balances the video image on the screen in both bright and dark areas making it possible to see clear details. There are 3 levels for your choice or disable WDR.
- **Denoise:** Select Disable/2D/3D/Auto to reduce the excessive noise on the video image.

[Note] The 3D de-noises works under resolution 2M.



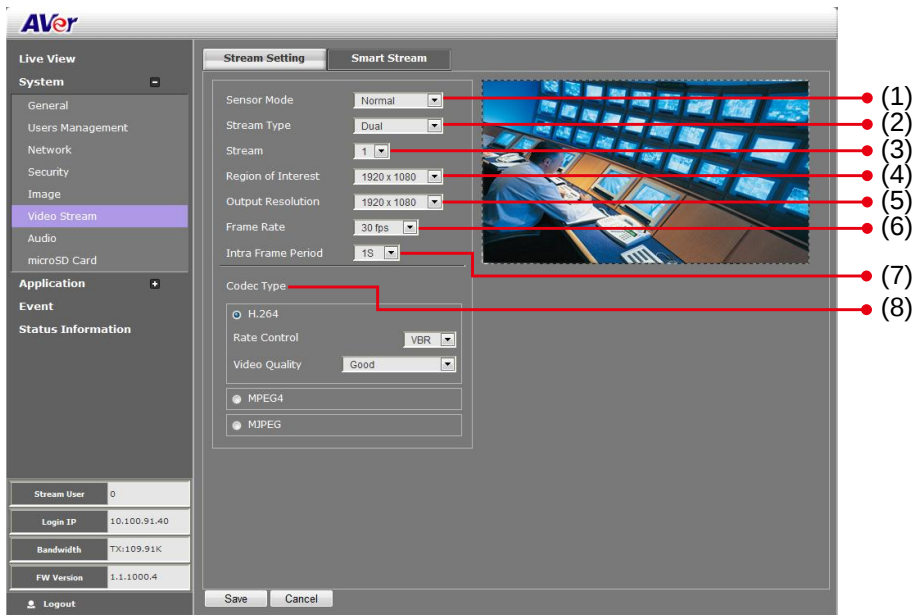
System > Image > Privacy Mask

In Privacy Mask page, you can enable 3 privacy masks. Simply adjust the size and position the mask on the area you want to conceal. The viewer will not be able to see the masked area. It will cover the video screen with black frame.



System > Video Stream > Stream Setting

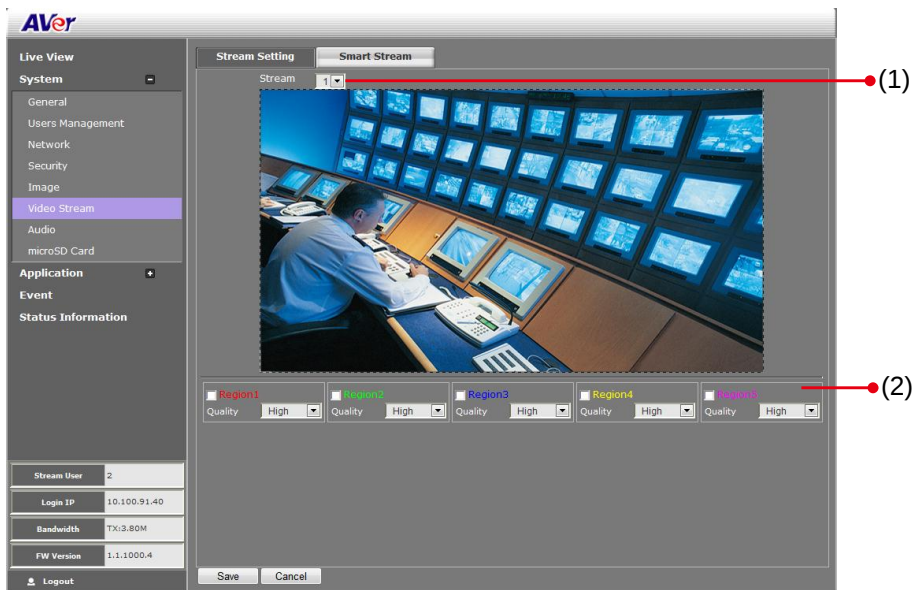
Both admin and operator levels can configure the Video Stream. After configuring the video stream setting, click Save to apply the new setting and Cancel to keep the old setting.



Name		Function
(1)	Sensor Mode	Select sensor input resolution from either Norma, Corridor 90°, or Corridor 270°. In corridor mode, the screen will flip to allow more deep view. Sensor Mode Normal Normal Corridor 90° Corridor 270° [Note] Available for 3M pixel model or above.
(2)	Stream Type	Select to transmit single or simultaneous multiple streams of 2 or 3 videos. The sensor mode in corridor 90 and 270 only support single and dual stream.
(3)	Stream	Select the streaming source.
(4)	Region of Interest	Select the cropping size of video.
(5)	Output Resolution	Select the video size.

Name	Function
(6) Frame Rate	Select frame rate per second of video
(7) Intra Frame Period	Select frame internal time period.
(8) Code Type	Select the type of video compression codec. The supported codec is H.264, MPEG4, and MJPEG. On each stream, adjust rate control and video quality setting. <u>VBR (Variable Bit Rate)</u>: by default use this setting if there is a need to maintain the image quality whenever there is lot of activities on the scene or no motion. This setting keeps the video stream constant as possible which increases the bandwidth requirement when there is high motion and decreases when there is no motion. The bandwidth must be able to accommodate high throughputs. <u>CBR (Constant Bit Rate)</u>: use this setting if there is bandwidth concern. This setting is restricted to keep the bit rate setting. This could affect the image quality and frame rate if there is high activity that result in a bit rate that is higher than the set bit rate.

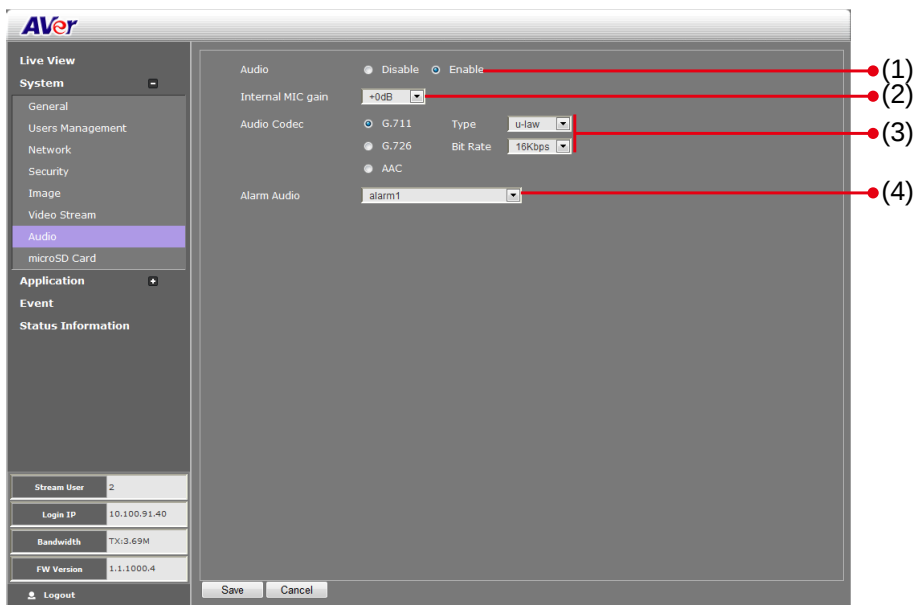
System > Video Stream > Smart Stream



Name	Function
(1) Stream	Select the streaming source. This option is only applied to H.264.
(2) Quality	High: video quality of selected area is better than that of un-selected area. Low: video quality of selected area is worse than that of un-selected area

System > Audio

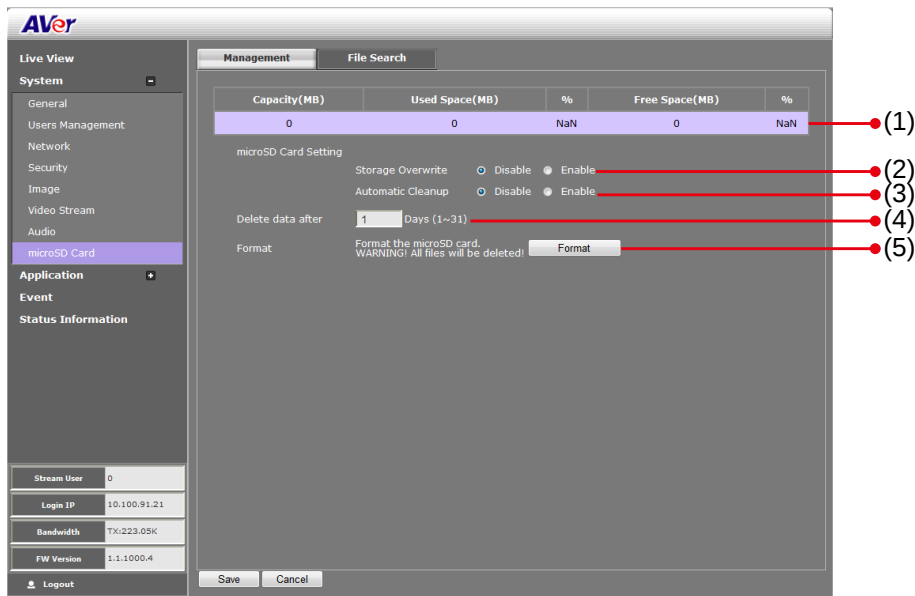
Both admin and operator levels can configure the IP camera audio setting. After configuring the Audio setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Audio	Select to enable/disable the IP camera built-in mic and mic port.
(2) Internal MIC gain	Select to boost up the internal/external mic gain or set to normal.
(3) Audio Codec	Select the audio protocol, algorithm, and audio bit rate. G.711 : uses Pulse code modulation (PCM) of voice. G.726 : uses 40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM) AAC : uses AAC codec
(4) Alarm Audio	Select to choose from 2 types of alarms sound or customer alarm to use the uploaded alarm sound. The supported sound format are in *.wav (PCM 8KHz/16bit Mono, 10 seconds).

System > microSD Card > Management

Both admin and operator levels can manage the SD/microSD Card local storage. After managing the SD/microSD Card setting, click **Save** to apply the new setting and **Cancel** to keep the old setting. We recommend formatting the SD/microSD card when using it for the first time.



Name	Function
(1) SD/microSD Card Info	Shows the SD/microSD card details. No details will appear if SD/microSD Card is not inserted.
(2) Cycle Storage	Enable/disable cycle recording. The old file in the SD/microSD card will be overwritten with the latest one when it has reached the maximum capacity.
(3) Automatic Cleanup	Enable/disable automatic clear the data in SD/microSD card. The file will be deleted when it has reached the number of days set in Delete data after [xx] days .
(4) Delete data after	Enter the number of days you wish to retain a file.
(5) Format	To delete all the data in the SD/microSD card.

System > microSD Card > File Search

Search the captured image in the SD/microSD card.

AVer

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Stream User

0

Login IP

10.100.91.21

Bandwidth

TX:205.56K

FW Version

1.1.1000.4

Logout

Management

File Search

Start Time

2015-01-08 00:00

End Time

2015-01-08 23:59

Search

File Name	Time	Type
No Data		

Application > Motion Detection

Both admin and operator levels can specify up to 3 areas on the screen to monitor the motion. In the motion detection page, the frame will blink when the motion detected has reached the percentage threshold setting. This feature can be utilized to trigger a response in Event setting.

AVer

Live View
System
Application
Event
Status Information

Motion Detection
IVA
ePTZ

Stream User: 0
Login IP: 10.100.91.21
Bandwidth: TX:118.41K
FW Version: 1.1.1000.4
Logout

Region1
Sensitivity
Percentage
Monitor
0%

Region2
Sensitivity
Percentage
Monitor
0%

Region3
Sensitivity
Percentage
Monitor
0%

Save Cancel

To Set the Motion Detection

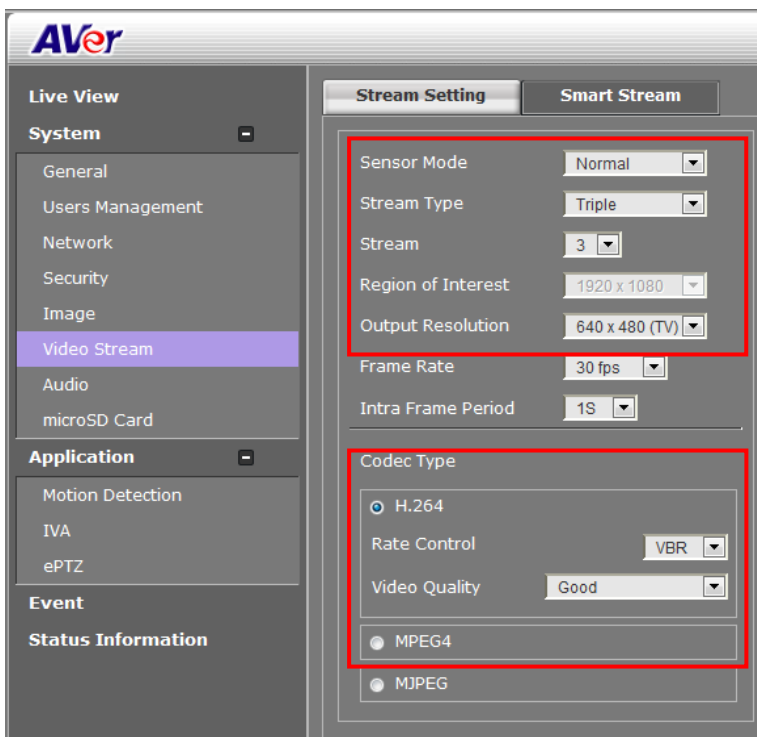
1. Click **Application > Motion Detection**.
2. Enable the region check box (Region 1, Region 2, Region 3) to create a motion detection frame.
3. Move and adjust the frame to the area you want to detect the motion.
4. Adjust the sensitivity and percentage. Sensitivity detects the motion on the screen and assesses the changes in pixel thru percentage. The motion detection will activate when the Monitor level reaches the defined percentage.
5. Click **Save** to apply the new setting and **Cancel** to keep the old setting.

Application > IVA

If IVA function has been disabled, the all corresponded functions are disabled.

To enable IVA function, must meet the following conditions:

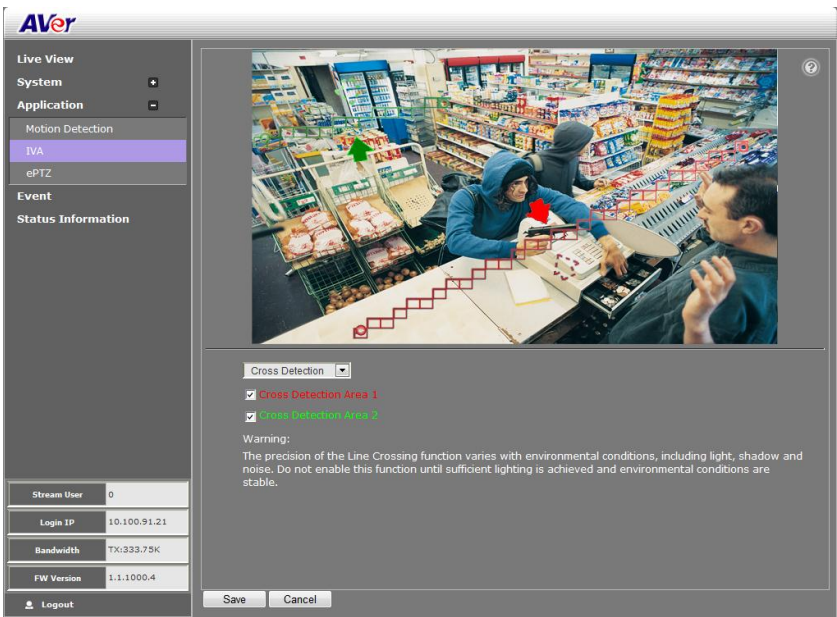
1. CODEC type is set to “**H264**” or “**MPEG4**”.
2. Stream type is set to “**Triple**” and Stream 3 resolution set to “**640x480**”.
3. Sensor mode set to “**Normal**” mode.



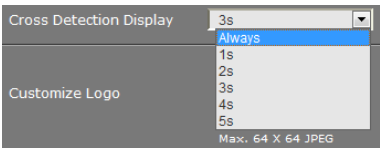
Application > IVA > Cross Detection

Cross detection function detects moving objects that cross the virtual lines that user has set up in IP camera application and to trigger the alarm.

- 1. Click **Application** > **IVA**, select **Cross Detection** from the drop-down list.
- 2. Enable Cross Detection Area 1/2 check box
- 3. You will see the red/green line is shown on the video screen.
- 4. Drag the red line (area 1) or green line (area 2) to set the area for cross detection. You can set both lines for cross detection or one of the lines. There is no priority for the 2 lines; the color is just for you to differentiate when both lines are set.
- 5. After setting the cross detection area, click the arrow to set cross detect direction. The arrow point is the direction of cross way.
- 6. Click **Save** to save the setting.



- 7. Go to **System > Image > Cross Detection Display** to set the display status of cross detection line(s). If user wants to see the cross detection line(s) always display on the screen, select **always**. If user only wants to see the cross detection line(s) when the cross detection has triggered, select the time in second (1s, 2s, 3s, 4s, or 5s) to display the cross line(s) on the screen.
- 8. To set the cross detection alarm, please go to the [Event Setting](#).

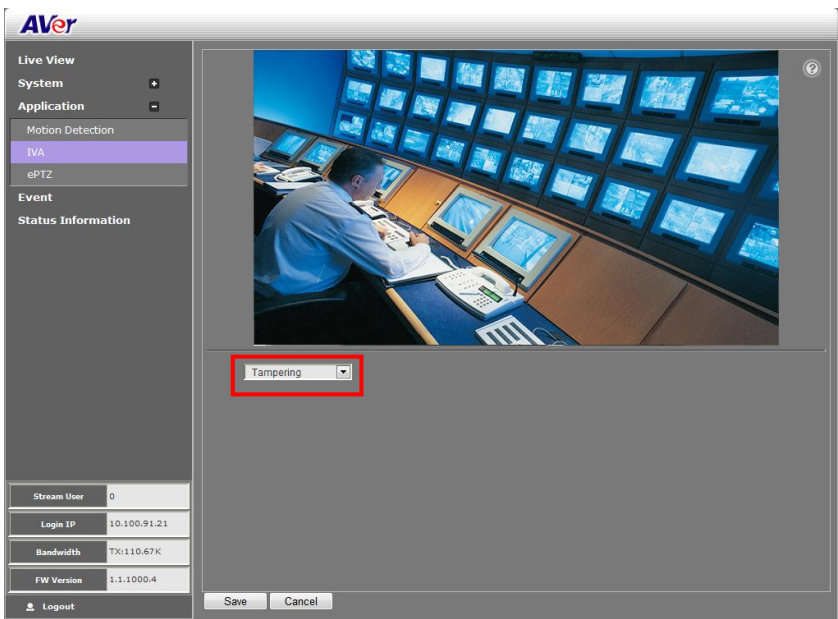


Application > IVA > Tampering

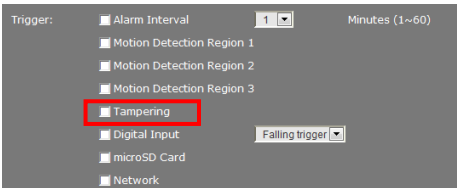
Alarm triggers when the following situation has occurred.

- **Spray-painting:** Alarm is triggered when the camera has detected the painting sprayed on the camera's view for over 2 seconds.
- **Intention Block /Cover:** Alarm is triggered when the camera has detected the camera's view being blocked intentionally over 2 seconds.
- **Accidental redirection:** Alarm is triggered when someone re-directs the position or direction of camera accidentally.
- **Defocusing:** Alarm is triggered when the camera has lost focus.

1. Click **Application > IVA**, select the **Tampering** from the drop-down list.
2. Click **Save** to enable the Tampering function.



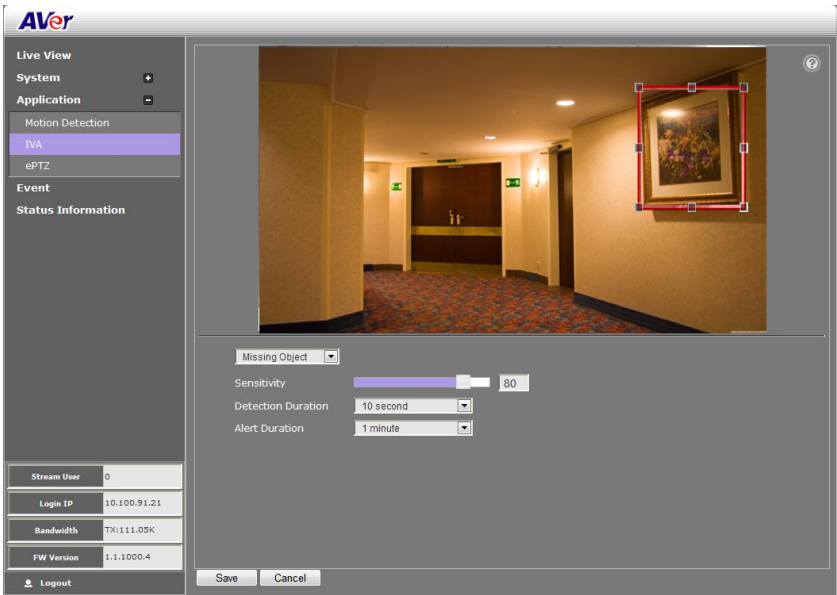
3. Go to **Event setting** and mark **Tampering** to enable tampering alarm.
4. When alarm has been triggered, there will be a red-frame flashing on the live video screen for 30 seconds.



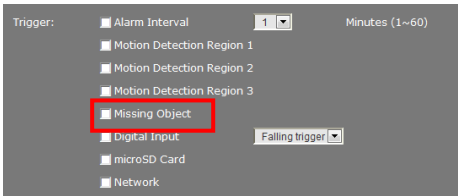
Application > IVA > Missing Object

Select a certain object on the screen for the camera system to detect; System gives alarm when the object disappears.

- 1. Click **Application > IVA**, select the **Missing Object** from the drop-down list.
- 2. A red frame will show up on the screen. Click and drag the red frame to the object position and click the frame to adjust the size of frame.
- 3. **Sensitivity**: Set the degree of response of detection.
- 4. **Detection Duration**: Set the lasting time for camera system to detect the object.
- 5. **Alert Duration**: Set the alarm lasting time after alarm has been triggered.



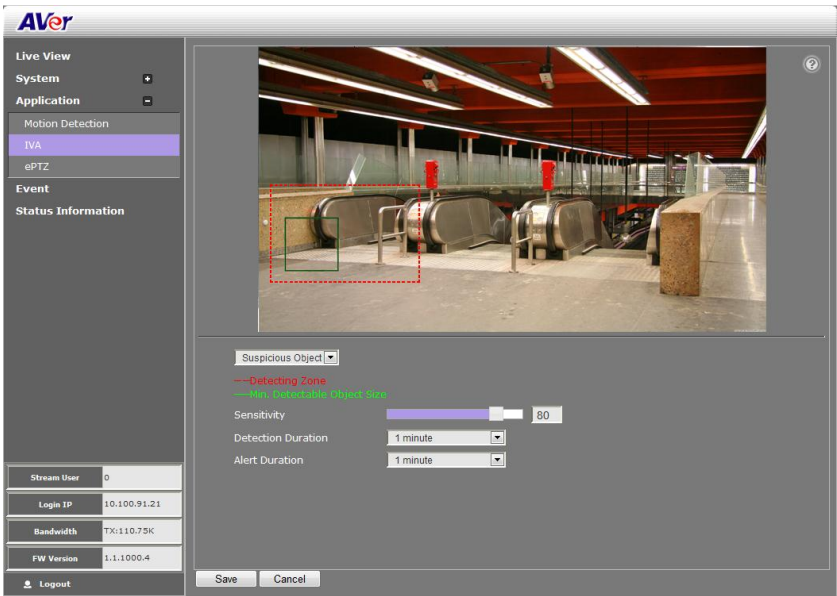
- 6. Click **Save** to save the settings.
- 7. Go to **Event setting** and mark **Missing Object** to enable the alarm.



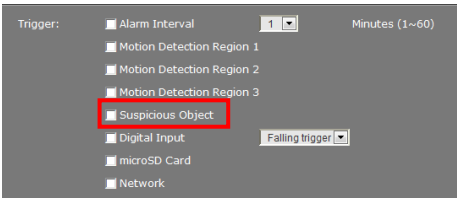
Application > IVA > Suspicious Object

Suspicious Object is an unusual object appears on the screen.

1. Click **Application > IVA**, select the **Suspicious Object** from the drop-down list.
2. A red frame and green frame will show up on the screen. The red frame is defined as detecting zone and green frame is defined as object size frame. Click and drag the red frame to the position and click the frame to adjust the size of frame. Next, click and drag the green frame the detecting zone and adjust the size of object for detection.
3. **Sensitivity**: Set the degree of response of detection.
4. **Detection Duration**: Set the lasting time for camera system to detect the object.
5. **Alert Duration**: Set the alarm lasting time after alarm has been triggered.

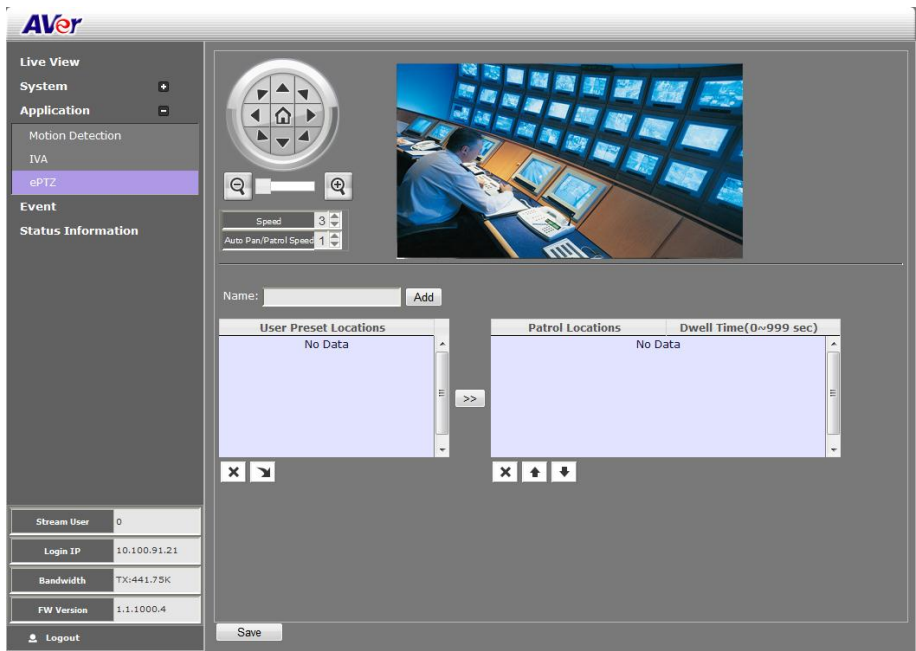


6. Click **Save** to save the settings.
7. Go to **Event setting** and mark **Suspicious Object** to enable the alarm.



Application > ePTZ

Both admin and operator levels can customize the ePTZ setting. In this section, you can set the patrol target area, patrol sequence and dwelling time.



To Setup the ePTZ

1. Click **Application > ePTZ**.
2. Use the direction buttons and zoom button to locate the patrol target area. Press  to view the full image and reset the zoom level.

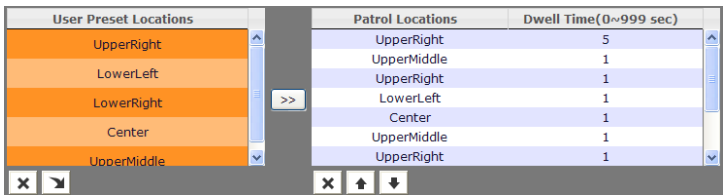


3. Type a name for the patrol shooting area e.g. type “UpperLeft” in the Name text box and press **Add** button. The preset target area will be listed in the User Preset Locations. Click  to delete the preset target area and  to show the preset target area. Repeat step 2 and 3 to add more preset locations.

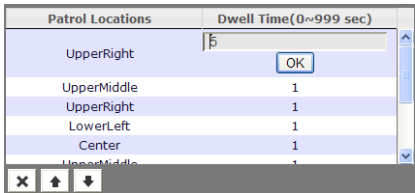
Name: UpperLeft

Add

4. Select the preset target area in the list and press  to create the patrol sequence. The selected present target area will be listed in the Patrol Locations.



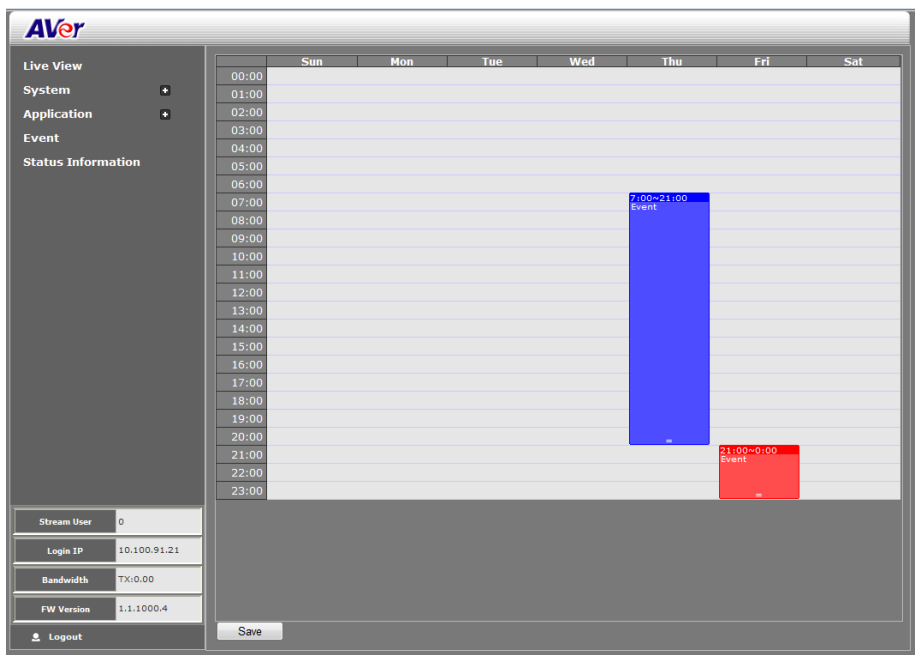
5. Set the dwelling time for how long you want to stay in the preset target area. Double-click and enter the time. Then click **OK** or press enter to apply the changes.



6. Click  to delete the selected preset location in the Portal Locations list and   to arrange the patrol order.
7. Click **Save** to implement the preset patrol setting.

Event Setting

Both admin and operator levels can configure the Event setting. In this section, the IP camera can be configured to perform an action when an event is triggered at the specified time.



To Setup the Event

1. Click **Event**.
2. On the time table, click-drag to select the time period to specify the period of the event.
3. Type a name for the event. The naming rule is no space between each character and number and no special character. The length of name is 20 in both characters and numbers.
4. Select the color to represent the event

Event Name:

Event

(1~20 digital)

Event Color:

Blue

Blue

Red

Yellow

Green

Schedule:

Time:

7

to

21

5. Set the schedule. You can set the time period and choose another day(s) to apply the same event setting.

Schedule:

Time:

☐ From

7

to

21

Days:

☐ Sun

☐ Mon

☐ Tue

☐ Wed

☒ Thu

☐ Fri

☐ Sat

6. Enable the type of event for the IP camera to trigger.

Trigger: ☒ Alarm Interval Minutes (1~60)

☐ Motion Detection Region 1

☐ Motion Detection Region 2

☐ Motion Detection Region 3

☐ Suspicious Object

☐ Digital Input

☐ microSD Card

☐ Network

- **Alarm Interval**
This triggers the IP camera based on the time that use has set in **Minutes** column. The interval time rage is 1~60 minutes.
- **Motion Detection Region 1/2/3**
This triggers the IP camera when a motion is detected on the motion detection region.
- **Alarm Cross Detection Area 1/2**
This triggers the IP camera when a cross detection is detected on the cross detection area.

Trigger: ☒ Alarm Interval Minutes (1~60)

☐ Motion Detection Region 1

☐ Motion Detection Region 2

☐ Motion Detection Region 3

☐ Cross Detection Area 1

☐ Cross Detection Area 2

☐ Digital Input

☐ microSD Card

☐ Network

- **Tampering**
This triggers the IP camera when tampering situation has met (Spray-painting, Intention Block /Cover, Accidental redirection, or Defocusing). The tampering alarm selection will display only when tampering function has enabled.

Trigger: ☒ Alarm Interval Minutes (1~60)

☐ Motion Detection Region 1

☐ Motion Detection Region 2

☐ Motion Detection Region 3

☐ Tampering

☐ Digital Input

☐ microSD Card

☐ Network

- **Missing Object**

This triggers the IP camera when a missing object is occurred. The missing object alarm selection will display only when missing object function has enabled.

- **Suspicious Object**

This triggers the IP camera when a suspicious object is occurred. The suspicious object alarm selection will display only when suspicious object function has enabled.

- **Digital Input**

This triggers the IP camera when the external digital input device or sensor is activated. Select the trigger type –Falling trigger or Rising trigger.

- **microSD Card**

This triggers the IP camera when the microSD card is removed.

- **Network**

This triggers the IP camera when the Internet connection is disconnected.

7. Select the type of action for the IP camera to perform when a trigger is activated. Set the duration. Choose digital output to send recorded video or still image, Alarm Audio to sound the alarm, or enable/disable Event Booster. Then select the type of server/media to where to send the file. To configure the FTP and NAS setting, go to **System > Network > Server**.

[Note]

- Snapshot** and **System log** support sending the file thru Mail, and storing in FTP, NAS or microSD card. You can enable multiple options to send and save the captured image.
- Video Clip** supports storing in FTP, NAS or microSD card. You can only select one storage option to save the video file. For better performance, we recommend to set the

video stream is default value.

8. Click **OK** to add the event setting, **Delete** to remove, and **Cancel** to without save and close the event setting.

Status Information

Show the information about the device and network setting.

Live View

System

General

Users Management

Network

Security

Image

Video Stream

Audio

microSD Card

Application

Event

Status Information

Stream User

0

Login IP

10.100.91.21

Bandwidth

Tx:0.00

FW Version

1.1.1000.4

Logout

Device

Model Name

FD2000-1

System up Time

1 Days, 22:16:58

Hardware

1.0.0.0

Firmware

1.1.1000.4 / 080CN07D-DSW

microSD Card

Network

IPv4 Information

IP Address

10.100.91.51

Mask

255.255.255.0

Gateway

10.100.91.254

Primary DNS

10.100.1.5

Second DNS

10.100.1.6

General

MAC Address

00:18:1a:00:08:52

DDNS Status

DDNS does not launch!

50

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